Solid State Devices, Inc.
14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

SPD5711 and SPD5712

33 - 75 mA SCHOTTKY SMALL SIGNAL DIODE
16 – 50 VOLTS

Designer's Data Sheet

Part Number/Ordering Information [1/]

SPD5711
SPD5712 — — —

- **Screening** [2/] __ = Not Screened, TX = TX Level, TXV = TXV Level, S = S Level
- **Package** __ = Axial, SMS = Square Tab Surface Mount
- **Family/Rating** SPD5711 = 50V, 33mA; SPD5712 = 16V, 75mA

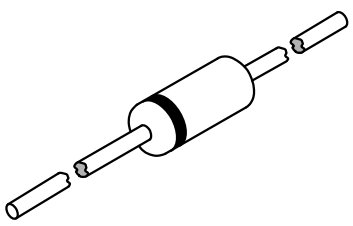
Features:

- **Extremely Low Turn On Voltage**
- **Ultra Fast Switching**
- **Hermetically Sealed**
- **Replacement for 1N5711 and 1N5712 with Improved Thermal Resistance**
- **Primary Intended for High Level UHF/VHF Detection and Pulse Applications with a Broad Dynamic Range**
- **Axial or Square Tab Surface Mount Versions Available**
  TX, TXV, and S-Level Screening Available [2/]

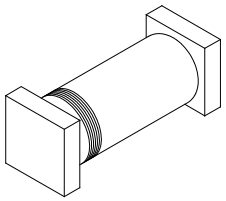
Maximum Ratings [3/]		Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	SPD5711 SPD5712	V_{RRM} V_{RWM} V_R	70 20	**Volts**
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, T_C = 25 °C)	SPD5711 SPD5712	I_O	33 75	**mAmps**
Operating & Storage Temperature		T_{OP} & T_{STG}	-65 to+150	**°C**
Maximum Thermal Resistance, Junction to Lead, L = 3/8" (Axial) Junction to End Tab (SMS)		$R_{\theta JL}$ $R_{\theta JE}$	250 200	**ºC/W**

Notes:
1/ For ordering information, price, operating curves, and availability- Contact factory.
2/ Screening based on MIL-PRF-19500. Screening flows available on request.
3/ Maximum ratings and electrical characteristics @ 25°C unless otherwise specified.

Axial Package:



Square Tab Surface Mount (SMS) Package:

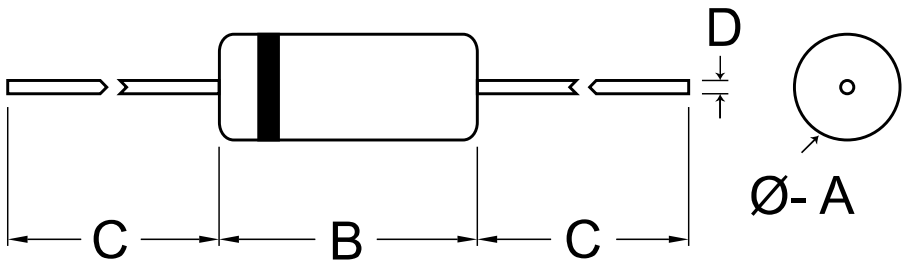


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SPD5711 and SPD5712

Electrical Characteristics [3/]		Symbol	SPD5711		SPD5712		Units
			Min	Max	Min	Max	
Blocking Reverse Voltage (I_R = 10 µA, T_A = 25°C, 300 – 500 µs Pulse)		V_{BR}	70	—	20	—	V_{DC}
Instantaneous Forward Voltage Drop (T_A = 25°C, 300 – 500 µs Pulse)	I_F = 1 mADC	V_{F1}	—	0.41	—	0.41	V_{DC}
	I_F = 15 mADC	V_{F2}	—	1.0	—	—	
	I_F = 35 mADC	V_{F3}	—	—	—	1.0	
Instantaneous Forward Voltage Drop (T_A = -55 ºC, 300 – 500 µs Pulse)	I_F = 1 mADC	V_{F4}	—	0.55	—	0.55	V_{DC}
	I_F = 15 mADC	V_{F5}	—	1.0	—	—	
	I_F = 35 mADC	V_{F6}	—	—	—	1.0	
Reverse Leakage Current (T_A = 25 ºC, 300 µs Minimum Pulse)	SPD5711: Vr = 50V	IR_1	—	200	—	150	nA
Reverse Leakage Current (T_A = 100 ºC, V_R = Rated, 300 µs Minimum Pulse)	SPD5712: Vr = 16V	IR_2	—	200	—	150	µA
Junction Capacitance (V_R = 0 VDC, V_{SIG} = 50 mV_{PK}, T_A = 25ºC, f = 1MHz)		C_J	—	2.0	—	2.0	pF

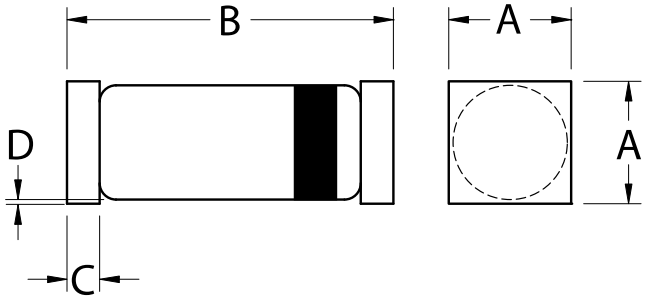
Axial Case Outline:



Note: Lead Diameter is not controlled within 0.050” of the diode body.

DIMENSIONS		
DIM	MIN.	MAX.
A	0.068”	0.076”
B	0.150”	0.170”
C	1.00”	1.50”
D	0.014”	0.022”

Square Tab Surface Mount (SMS) Case Outline:



DIMENSIONS		
DIM	MIN.	MAX.
A	0.080”	0.095”
B	0.205”	0.220”
C	0.022”	0.028”
D	0.001”	---